



APPRAISAL BULLETIN

PUBLISHED IN THE INTERESTS OF REAL ESTATE ANALYST SUBSCRIBERS BY

ROY WENZLICK & CO.

Real Estate Economists, Appraisers and Counselors

NOVEMBER 30
1950

Volume XIX

Copyright 1950 by ROY WENZLICK & CO. -Spartan House

Number 55

RESIDENTIAL AND COMMERCIAL CONSTRUCTION COSTS



18-FAMILY BRICK APARTMENT

Content: 168,385 cubic feet
13,260 square feet

DESCRIPTIVE SPECIFICATIONS 18-FAMILY BRICK APARTMENT BUILDING

GENERAL CONDITIONS

Materials, Labor, Appliances. Unless otherwise specified herein, the contractor shall provide and pay for all materials, labor, water, tools, equipment, permits, light and power necessary for the completion of the Wenzlick 18-family apartment. Unless otherwise specified, all materials shall be sound, new and of good quality and all work shall be done in a skillful and workmanlike manner.

PREPARATION OF SITE AND EXCAVATION

The contractor shall clear the site of all trees, brush, etc., which come within the area of the proposed building. He shall carefully remove and stack on the plot the top soil for making the lawn.

Excavation shall be of sufficient area and depth to accommodate the building indicated; foundation walls shall be carefully backfilled. Any surplus material not required to grade the plot as designated by plans shall be removed from the premises. Any shortage of materials shall be furnished by the contractor.

Rock excavation is not included in this contract. The contractor will be paid an additional price per cubic foot for rock removal as specified in his bid.

Pumping of other than surface water is not included in the contract price. If

spring or other sub-surface water is encountered, the contractor will be paid an additional price per day for keeping the excavation free at the price quoted in his bid or agreed upon between the contractor and the owner.

CONCRETE FOOTINGS AND FOUNDATIONS

Footings and foundation walls shall be installed to dimensions indicated on the plans. The mixture shall be one (1) part Portland Cement, three (3) parts clean sharp sand, five (5) parts broken stone, trap-rock, gravel or other suitable clean coarse aggregate, graded in size to pass through a 2" screen, adequately mixed with a sufficient amount of clean water in a mechanical batch mixer, placed in the forms within one-half hour thereafter. Substantial and tight forms shall be built on both inner and outer surface foundations of the walls. No part of the excavation wall shall be used as a form.

FINISHED CEMENT WORK

The under-course of the basement floor shall be poured over a well-tamped 3" cinder bed and shall be composed of concrete as specified above, laid so that there is a gradual fall from the foundation to the basement sewer drain. This concrete is to be 3" thick, plus a finish coat of one (1) part Portland Cement and three (3) parts clean sharp sand to be applied to a thickness of not less than one-half inch on top of all concrete under-courses, finished smooth under a steel trowel. Concrete fill shall be provided for tile floors in the bathrooms.

BRICKWORK AND MASONRY ITEMS

Exterior walls are to be 13" variegated matt brick laid in Flemish bond backed with dobies and salmon brick. Rear walls of building are to be faced with common brick and the fire walls are to be made of salmon brick and dobies. The contractor shall provide all brickwork as specified on the plans, comprising a chimney as indicated. Flues are to be lined with terra cotta of the proper dimension. Average-grade cut stone sills are to be provided for windows on the front and side of the building and stone lintels are to be provided over the basement windows. Ornamental work and roof coping to be of terra cotta.

LATHING AND PLASTERING

Contractor shall provide for 3-coat plastering over rock lath (or expanded metal lath) secured to studs (or joints) at each intersection with blued lath nail, corner beads provided for all exterior angles. The scratch coat shall be one (1) part lime putty to two (2) parts sand, with proper proportions of fiber and sand added. The brown coat shall be one (1) part lime putty to three (3) parts sand. The finished coat shall be one (1) part dry gauged plaster to two (2) parts dry hydrated lime. First grade workmanship is required in the application of each plaster coat. No cornice or other ornamental plaster work is contemplated under this contract.

The basement ceiling shall be covered with two coats of plaster, including sand float finish coat.

TILING

This specification provides for tiling all bathrooms. Floors shall be prepared by the carpenter and mason, and walls by plaster contractor as specified above. The tile setter shall furnish and install 4-1/4 x 4-1/4 glazed commercial-grade wall tile with approved caps, cove bases, angles, finials, etc. Tile shall be

installed to a height of 3' 6" and to ceiling around bath tubs. Bathroom floors shall be 1" or 2" hexagonal white ceramic tile.

The contractor shall furnish all setting materials and on completion leave the entire work properly grouted and cleaned.

ROUGH CARPENTRY AND FRAMING MATERIAL

for milling.

Rough carpentry and framing material shall be the best grade provided in local practice. It may be yellow pine, white pine, fir or hemlock. All material shall be of sizes indicated, with allowance

| | |
|---------------------------------|------------------------------|
| Floor Joists | 2" x 12" - spaced 16" c to c |
| Ceiling Joists | 2" x 8" - spaced 16" c to c |
| Roof Rafters | 2" x 6" - spaced 16" c to c |
| Studding in interior partitions | 2" x 4" - spaced 16" c to c |

One line of cross bridging shall be provided for each floor span exceeding 10'. The entire structure shall be braced and trussed where necessary and securely nailed as required by best practice.

UNDERFLOORING AND ROOF SHEATHING

6d nails.

Sheathing on roof and all sub-flooring shall be provided as indicated. Material shall be No. 2, dressed and not over 6" wide, laid diagonally for floors and each intersection well secured by two

ROOFING

one thickness of Celotex.

The mansard portion of the roof shall be a good grade of variegated slate. The flat portion of the roof is to be Certainteed built-up asphalt laid over

FLASHING - SHEET METAL WORK

ly supported by approved hangers and straps.

Provide and install 16-ounce copper flashing for valleys and angles, chimney counter and step flashed. Provide gutters and downspouts of 16 ounces copper with necessary fittings, all securely

MILLWORK - WINDOW FRAMES AND SASH

shall be 1-3/8" thick, check-rail type. Exterior door frames shall be 2" clear pine rabbeted to receive 1-3/4" stock doors.

Stock window frames and sash shall be provided of the sizes shown on the plans. These shall be double-hung type as indicated and sash shall be glazed with single-strength clear glass. The sash

MILLWORK - INTERIOR

of yellow pine of the best quality and of approved design as carried in local stock. Exterior doors shall be clear pine 1-3/4" thick of the size shown on the plans as

All stock trim necessary to complete the various parts of the work indicated shall be provided. All casings, base, trim, stools and moulding shall be

selected from local catalog stock. Interior doors shall be of clear pine, six panel colonial design 1-3/8" thick of the size indicated on the plans selected from local catalog stock.

FINISHED FLOORS

Finished floors shall be of clear plain red oak 2-1/4" x 13/16", to be placed over all floor areas on the first, second and third floors, except the baths. Flooring shall be laid tight and even and nailed every 16". All oak flooring shall be scraped or sanded and completed ready for the painters. Before placing finished flooring all sub-flooring shall be covered with one course of building paper.

BUILT-IN CABINETS

Built-in kitchen cabinets shall be provided as indicated on the detail plans.

ENTRANCE HALLS AND STAIRS

All interior stairs are to be metal with terrazzo treads and risers. The interior walls of the entrance halls are to have claytile wainscoting. The remainder of the walls and ceilings are to be plastered. The floors and stair landings are to be of terrazzo.

Each entrance hall shall be equipped with a 6-receptacle "Keilson" government-approved apartment house mail box; finish to be "sprayed brass."

REAR PORCHES AND STAIRS

Rear porches and stairs are to be made of structural steel with concrete floors. The size is indicated on the plans. There are to be three outside entrances to the basement of the building, and these entrances are to be furnished with concrete steps.

PAINTING

Immediately upon completion of all exterior and interior woodwork the painter shall apply a priming coat consisting of white lead, pure linseed oil and turpentine in the proportions considered best in local practice. Upon completion of the priming coat, all nail holes and other imperfections in the work shall be stopped and filled with white lead putty. Before priming, knots and shakes shall be stopped with one coat of pure orange shellac. Second and third coats shall be mixed and applied in the color selected. Painters may mix at the job all white lead and oil paint in the proportions customary in the locality, using paste, white lead, pure linseed oil, turpentine and dryer, mixed in such proportions as to weigh not less than 15 lbs. per gallon. Painter may use the best qualities of approved ready-mixed paints. Each can must bear the formula of its contents. Materials shall be used direct from this original package and in accordance with the manufacturer's directions. (This contract does not contemplate the painting or decoration of plastered walls and ceilings.) Painter shall oil-stain oak floors in shade selected and fill with an approved paste filler. Floors shall then be finished with three coats of white shellac.

PLUMBING

This specification contemplates a complete plumbing, drainage and water-supply system for 18 bathrooms, 18 kitchens and 9 laundry trays in basement.

Sewer Line, Vents and Drainage. House sewer line of 6" shall be carried to a point 50 feet beyond foundation walls. Vent and drainage system shall be installed and tested in accordance with best local practice, municipal code, or requirements of American Society of Sanitary Engineers. All joints shall be filled with oakum and poured lead and well calked. 2" vent and waste lines shall be of genuine galvanized wrought iron. 6" vitrified tile pipe shall be continued beyond the foundation walls for 50 feet and the joints securely set with cement mortar. Plumber shall excavate and backfill all pipe trenches.

Water Supply. A pipe shall be continued 50 feet beyond the foundation walls in separate trench. This shall be laid using 1" copper water tubing with sweat-joint fittings. One-half inch copper tubing with sweat-joint pipe and fitting shall be installed for hot and cold water supply and connected with all plumbing fixtures and boiler. (Water closets and boiler shall be provided with cold-water supply only.) All pipe and fitting shall be installed in accordance with manufacturer's instructions.

Fixtures. There shall be furnished and installed to the rough connections here provided fixtures of quality equal to those specified in the following list: (The following list covers items manufactured by the Independent Plumbing and Heating Company. Contractor is permitted to substitute any equal combination.)

- 18 - 60" Queen Sinks #457
- 18 - Knight Pedestal Lavatories 20" x 24" over all #224
- 18 - Colonial Vitreous China Toilets with white ivoryette seat #344
- 18 - 60" bath tubs #123

Hot Water Supply. An indirect water heater (Sims, Allberger, Fre-Flo or equal) is to be provided under these specifications. Heater must be capable of providing ample supply of hot water (100 degree Fahrenheit temperature rise) with normal boiler operation.

Alternates. If local building codes and practice do not permit the use of copper tubing and sweat-joint fittings for water supply, the contractor shall furnish genuine wrought-iron galvanized pipe in place thereof. However, where substitution is made, pipe one size larger than specified shall be provided.

HEATING PLANT

The purpose of this specification is to describe complete installation of the 1-pipe vacuum heating plant. All pipes shall be genuine wrought iron, installed in sizes, pitch and direction as indicated on the heating plans and instructions provided by the manufacturer furnishing the vacuum system accessories.

Radiation furnished by this contract consists of a total of 2200 square feet concealed steam radiation. The boiler shall be of capacity and design equal to Kewanee Boiler No. 4K, complete including insulating jackets, standard fittings and tools.

The contractor shall guarantee the heating plant to heat the entire first, second and third floors of the building to 70 degrees Fahrenheit when the outside temperature is at Zero Fahrenheit and wind velocity is not in excess of 30 miles per hour.



TYPICAL FLOOR PLAN
EIGHTEEN - FAMILY APARTMENT

This should be accomplished with not more than a 2-pound gauge pressure at the boiler, or with the vacuum at the height specified by the manufacturer of the vacuum system accessories. The plant shall be tested as required and left complete.

Covering - Pipe and Boiler Jacket. The boiler shall have standard insulated jacket as regularly furnished by manufacturer, lined with not less than 1" thickness of asbestos sheet insulation, and 4" asbestos fill shall be placed on floor within jacket. All exposed supply pipes in the cellar and within building walls shall be covered with approved 2" air-cel asbestos covering. All exposed covering shall be banded at the joints with brass strapping.

Painting. All exposed pipes in the basement as well as any exposed unfinished cast-iron parts of the boiler shall receive two coats of approved smoke-stack black. All radiators, and any exposed pipes above the first floor level shall be thoroughly cleaned and receive two coats of approved heat-resisting radiator paint in color selected.

ELECTRIC WIRING

It is the purpose of this specification to describe a complete electrical installation. All material shall be of standard make and of quality and installed as required by the National Board of Fire Underwriters. All outlets shall terminate in approved metal boxes. Switches shall be of toggle type. All outlets other than for lighting fixtures and switches shall be equipped with standard duplex connections. Wiring to outlets shall be of approved-size BX cable of sufficient size to carry the circuit load.

Each circuit shall be switched and fused and extended to a central panel board. This contractor shall terminate all circuits at an appropriate meter and fuse board.

Connection from meter panel to public service lines is not included in this contract, nor are electrical fixtures and appliances provided.

MECHANICAL EQUIPMENT

Each apartment is to be equipped with one 4-burner side oven gas stove with automatic oven regulator; one 6-cubic-foot electric refrigerator; and one In-a-Door or Roll-Away bed. The building is to be provided with 3 Kerner incinerators, each incinerator to have a refuse door installed in the wall of the building at the proper height above the first, second and third floor service stair landings.

CORRECTION OF PREVIOUSLY GIVEN SPECIFICATIONS

ALL OAK FLOORING THAT HAS BEEN PREVIOUSLY SPECIFIED FOR THE BUILDINGS IN THE AUGUST AND SEPTEMBER 1950 APPRAISAL BULLETINS SHOULD READ: "CLEAR PLAIN RED OAK."

BUILDING COSTS OF AN EIGHTEEN-FAMILY BRICK APARTMENT HOUSE BUILT IN SAINT LOUIS

MATERIAL

1. Cost of face brick, sodium brick, subtile, floor lining, terra cotta, cut stone and building stone.
2. Cost of all materials going into mortar, concrete, cement and plaster.
3. Cost of all lumber, flooring, millwork, roofing and paint.
4. Cost of all materials for plumbing, heating, electrical work, sheet metal work, iron work, hardware, marble, tile, vitrolite and special equipment.

5. TOTAL MATERIAL COST

| Year | 1 | 2 | 3 | 4 | 5 |
|---------|---------|--------|---------|---------|---------|
| 1913 | \$ 3904 | \$1856 | \$ 7440 | \$ 7736 | \$20858 |
| 1914 | 3944 | 1864 | 7464 | 7756 | 20976 |
| 1915 | 3910 | 1869 | 7452 | 7756 | 20908 |
| 1916 | 4319 | 1844 | 7935 | 7725 | 23823 |
| 1917 | 4908 | 2246 | 8953 | 12546 | 28895 |
| 1918 | 5707 | 2788 | 12280 | 13143 | 33338 |
| 1919 | 6748 | 3546 | 13963 | 12626 | 35463 |
| 1920 | 7146 | 4057 | 14700 | 14098 | 38577 |
| 1921 | 8246 | 5057 | 17297 | 17463 | 44244 |
| 1922 | 8795 | 5162 | 17562 | 17186 | 37708 |
| 1923 | 7217 | 3362 | 12455 | 12176 | 36210 |
| 1924 | 7340 | 3502 | 12090 | 14505 | 37437 |
| 1925 | 7118 | 3191 | 11875 | 13323 | 40517 |
| 1926 | 6560 | 3024 | 11038 | 13460 | 39082 |
| 1927 | 6249 | 3081 | 10040 | 13996 | 39340 |
| 1928 | 6119 | 2820 | 10271 | 17010 | 36220 |
| 1929 | 5784 | 2759 | 10815 | 16397 | 35555 |
| 1930 | 5689 | 2559 | 9194 | 15377 | 33019 |
| 1931 | 5294 | 2240 | 8047 | 13777 | 29478 |
| 1932 | 4763 | 2422 | 7445 | 13412 | 27042 |
| 1933 | 5530 | 2448 | 8830 | 10580 | 27348 |
| 1934 | 6090 | 2880 | 11800 | 12225 | 32685 |
| 1935 | 6090 | 2835 | 10775 | 12960 | 32470 |
| 1936 | 5225 | 2550 | 10400 | 13580 | 32455 |
| 1937 | 6210 | 2810 | 10680 | 13410 | 33090 |
| 1938 | 6200 | 2815 | 10480 | 13640 | 32945 |
| 1939 | 5410 | 2590 | 10460 | 13550 | 31420 |
| 1940 | 5689 | 2540 | 10700 | 13720 | 31669 |
| AP 1940 | 5550 | 2560 | 11040 | 12980 | 32040 |
| 1940 | 5550 | 2560 | 11040 | 12980 | 32040 |
| O 1940 | 5550 | 2810 | 13150 | 12860 | 34250 |

LABOR

6. Cost of setting all stone, tile, marble and vitrolite, laying brick and pouring concrete.
7. Cost of labor on lathing and plastering.
8. Cost of carpentry, roofing, flooring, painting, decorating, and builder's general supervision.
9. Cost of installing plumbing material and fixtures, wiring, heating plant and sheet metal work.
10. Cost of excavation and grading.

11. TOTAL LABOR COST

| | 6 | 7 | 8 | 9 | 10 | 11 |
|------|--------|--------|--------|--------|---------|----|
| 2630 | \$3640 | 8 4601 | \$1478 | \$1063 | \$12390 | |
| 3820 | 3850 | 4651 | 1478 | 1062 | 13459 | |
| 3930 | 3950 | 4681 | 1542 | 1062 | 13495 | |
| 3740 | 2850 | 4862 | 1802 | 1080 | 13744 | |
| 4147 | 2710 | 5053 | 1697 | 1110 | 14607 | |
| 4243 | 2800 | 5437 | 1717 | 1110 | 15307 | |
| 4396 | 3000 | 5800 | 1764 | 1132 | 15999 | |
| 4676 | 3199 | 6255 | 2036 | 1332 | 18568 | |
| 4850 | 3320 | 6430 | 2082 | 1322 | 20214 | |
| 4840 | 3460 | 7817 | 2255 | 1608 | 19990 | |
| 5194 | 3400 | 8605 | 2454 | 1801 | 21604 | |
| 6450 | 4150 | 10075 | 2621 | 1881 | 25302 | |
| 6960 | 4150 | 10221 | 2631 | 1891 | 25853 | |
| 6554 | 3700 | 10311 | 2538 | 1891 | 25094 | |
| 6814 | 3650 | 10244 | 2500 | 1891 | 24904 | |
| 6394 | 3290 | 10244 | 2560 | 1891 | 24479 | |
| 5970 | 3020 | 10284 | 2561 | 1948 | 23771 | |
| 5872 | 2950 | 9910 | 2544 | 1773 | 21159 | |
| 7428 | 2350 | 7428 | 2354 | 1332 | 18364 | |
| 6467 | 1835 | 6467 | 2100 | 1175 | 15625 | |
| 3990 | 1560 | 5080 | 2040 | 1100 | 13770 | |
| 3990 | 1560 | 5080 | 2040 | 1100 | 13770 | |
| 8190 | 1980 | 6220 | 2040 | 1348 | 16735 | |
| 5510 | 2245 | 7400 | 2040 | 1360 | 18775 | |
| 5820 | 2380 | 8400 | 1675 | 1580 | 19655 | |
| 5125 | 2025 | 7205 | 1675 | 1245 | 18855 | |
| 5040 | 1810 | 6980 | 1675 | 1245 | 18460 | |
| 8210 | 2950 | 7840 | 1675 | 1580 | 20255 | |
| 8210 | 2950 | 7840 | 1675 | 1580 | 20255 | |
| 6310 | 2860 | 7145 | 1680 | 1560 | 18843 | |
| 5960 | 2860 | 7305 | 1680 | 1560 | 18675 | |

OVERHEAD

12. TOTAL OVERHEAD COST. This item includes cost of all city permits, city inspections and utility connection costs, cost of financing, interest during construction, insurance and sales commission on the building only, and estimated profit made by the builder.

13. TOTAL COST OF CONSTRUCTION

| | 12 | 13 | Cs. & cost | Eq. & cost |
|---------|---------|---------|------------|------------|
| \$ 8543 | \$ 8543 | \$ 8543 | \$ 8543 | \$ 8543 |
| 8693 | 8693 | 8693 | 8693 | 8693 |
| 8559 | 86853 | 8559 | 8559 | 8559 |
| 7141 | 44708 | 7141 | 44708 | 7141 |
| 8214 | 51396 | 8214 | 51396 | 8214 |
| 9141 | 59298 | 9141 | 59298 | 9141 |
| 8917 | 63297 | 8917 | 63297 | 8917 |
| 11795 | 75301 | 11795 | 75301 | 11795 |
| 10328 | 84618 | 10328 | 84618 | 10328 |
| 10108 | 83808 | 10108 | 83808 | 10108 |
| 10074 | 84480 | 10074 | 84480 | 10074 |
| 11966 | 74795 | 11966 | 74795 | 11966 |
| 12721 | 78091 | 12721 | 78091 | 12721 |
| 12320 | 76480 | 12320 | 76480 | 12320 |
| 12228 | 76478 | 12228 | 76478 | 12228 |
| 11629 | 72328 | 11629 | 72328 | 11629 |
| 11387 | 70713 | 11387 | 70713 | 11387 |
| 10488 | 64648 | 10488 | 64648 | 10488 |
| 97902 | 57902 | 97902 | 57902 | 97902 |
| 51090 | 51090 | 51090 | 51090 | 51090 |
| 7983 | 49101 | 7983 | 49101 | 7983 |
| 8743 | 55197 | 8743 | 55197 | 8743 |
| 9183 | 58368 | 9183 | 58368 | 9183 |
| 9609 | 60829 | 9609 | 60829 | 9609 |
| 10047 | 63962 | 10047 | 63962 | 10047 |
| 9062 | 61863 | 9062 | 61863 | 9062 |
| 9243 | 57123 | 9243 | 57123 | 9243 |
| 9939 | 81883 | 9939 | 81883 | 9939 |
| 10002 | 82297 | 10002 | 82297 | 10002 |
| 9933 | 81818 | 9933 | 81818 | 9933 |
| 10287 | 64142 | 10287 | 64142 | 10287 |

| | | | | | | | | | | | | | | |
|---------|-------|------|-------|-------|-------|------|-------|------|------|-------|-------|--------|------|-------|
| Ja 1941 | 5810 | 2835 | 13150 | 34725 | 6770 | 3210 | 8320 | 1890 | 2045 | 22235 | 11463 | 66423 | 40.6 | 5.16 |
| Ap 1941 | 5790 | 2635 | 13190 | 34145 | 6650 | 3115 | 8515 | 1890 | 2130 | 22300 | 10700 | 67145 | 39.9 | 5.08 |
| Ja 1941 | 5910 | 2720 | 13890 | 33640 | 6910 | 3190 | 9490 | 1890 | 2130 | 22310 | 11171 | 70421 | 41.3 | 5.31 |
| O 1941 | 5940 | 2750 | 14160 | 33860 | 7120 | 3240 | 10180 | 1890 | 2130 | 22450 | 11696 | 72996 | 43.9 | 5.58 |
| Ja 1942 | 5940 | 2760 | 13310 | 37250 | 7870 | 3290 | 10350 | 1890 | 2200 | 22600 | 11860 | 73200 | 44.7 | 5.67 |
| Ap 1942 | 5910 | 2735 | 13360 | 37115 | 7870 | 3290 | 10350 | 1890 | 2200 | 22600 | 12274 | 73679 | 46.4 | 5.89 |
| Ja 1942 | 6010 | 2785 | 13860 | 36715 | 7870 | 3290 | 10350 | 1890 | 2200 | 22600 | 12274 | 73679 | 46.4 | 5.89 |
| O 1942 | 6010 | 2785 | 13860 | 36715 | 7870 | 3290 | 10350 | 1890 | 2200 | 22600 | 12274 | 73679 | 46.4 | 5.89 |
| Ja 1943 | 6410 | 2785 | 13860 | 36715 | 7870 | 3290 | 10350 | 1890 | 2200 | 22600 | 12274 | 73679 | 46.4 | 5.89 |
| Ap 1943 | 6410 | 2785 | 13860 | 36715 | 7870 | 3290 | 10350 | 1890 | 2200 | 22600 | 12274 | 73679 | 46.4 | 5.89 |
| Ja 1943 | 6410 | 2785 | 13860 | 36715 | 7870 | 3290 | 10350 | 1890 | 2200 | 22600 | 12274 | 73679 | 46.4 | 5.89 |
| O 1943 | 6410 | 2785 | 13860 | 36715 | 7870 | 3290 | 10350 | 1890 | 2200 | 22600 | 12274 | 73679 | 46.4 | 5.89 |
| Ja 1944 | 6410 | 2835 | 13900 | 36715 | 7870 | 3290 | 10350 | 1890 | 2200 | 22600 | 12274 | 73679 | 46.4 | 5.89 |
| Ap 1944 | 6410 | 2835 | 13900 | 36715 | 7870 | 3290 | 10350 | 1890 | 2200 | 22600 | 12274 | 73679 | 46.4 | 5.89 |
| Ja 1944 | 6410 | 2835 | 13900 | 36715 | 7870 | 3290 | 10350 | 1890 | 2200 | 22600 | 12274 | 73679 | 46.4 | 5.89 |
| O 1944 | 6410 | 2835 | 13900 | 36715 | 7870 | 3290 | 10350 | 1890 | 2200 | 22600 | 12274 | 73679 | 46.4 | 5.89 |
| Ja 1945 | 6805 | 2905 | 17290 | 43640 | 7460 | 3137 | 8630 | 1890 | 2360 | 23077 | 12767 | 81604 | 46.4 | 6.18 |
| Ap 1945 | 6805 | 2935 | 17290 | 43640 | 7460 | 3137 | 8630 | 1890 | 2360 | 23077 | 12767 | 81604 | 46.4 | 6.18 |
| Ja 1945 | 6875 | 2815 | 17290 | 43640 | 7460 | 3137 | 8630 | 1890 | 2360 | 23077 | 12767 | 81604 | 46.4 | 6.18 |
| O 1945 | 7155 | 2960 | 17300 | 44345 | 10100 | 4480 | 14150 | 2360 | 2455 | 25145 | 14979 | 84094 | 55.9 | 7.09 |
| Ja 1946 | 7155 | 3005 | 17290 | 44370 | 10100 | 4580 | 14150 | 2360 | 2455 | 25145 | 14979 | 84094 | 55.9 | 7.10 |
| Ap 1946 | 7070 | 3075 | 17290 | 43640 | 10990 | 4800 | 14150 | 2360 | 2455 | 25145 | 14979 | 84094 | 55.9 | 7.10 |
| Ja 1946 | 8145 | 3110 | 17390 | 47785 | 10990 | 4800 | 14150 | 2360 | 2455 | 25145 | 14979 | 84094 | 55.9 | 7.10 |
| O 1946 | 8145 | 3275 | 18390 | 50215 | 10990 | 4800 | 14150 | 2360 | 2455 | 25145 | 14979 | 84094 | 55.9 | 7.10 |
| Ja 1947 | 7315 | 3765 | 27500 | 58130 | 13400 | 5780 | 18300 | 3800 | 3680 | 41860 | 13962 | 120360 | 71.8 | 9.08 |
| Ap 1947 | 7720 | 3765 | 27500 | 58130 | 13400 | 5780 | 18300 | 3800 | 3680 | 41860 | 13962 | 120360 | 71.8 | 9.08 |
| Ja 1947 | 7720 | 3765 | 27500 | 58130 | 13400 | 5780 | 18300 | 3800 | 3680 | 41860 | 13962 | 120360 | 71.8 | 9.08 |
| O 1947 | 8340 | 3930 | 28600 | 60370 | 13400 | 5780 | 18300 | 3800 | 3680 | 41860 | 13962 | 120360 | 71.8 | 9.08 |
| Ja 1948 | 8340 | 4060 | 27450 | 63070 | 13900 | 6000 | 18900 | 3870 | 4550 | 45220 | 18950 | 137840 | 78.9 | 9.44 |
| Ap 1948 | 8420 | 4280 | 27620 | 64530 | 13900 | 6000 | 18900 | 3870 | 4550 | 45220 | 20280 | 134240 | 79.8 | 10.11 |
| Ja 1948 | 8000 | 4270 | 28180 | 70470 | 14620 | 6375 | 18100 | 4250 | 4680 | 47995 | 21110 | 139575 | 82.9 | 10.52 |
| O 1948 | 8025 | 4385 | 28230 | 72910 | 14620 | 6375 | 18100 | 4250 | 4680 | 47995 | 21502 | 143407 | 84.6 | 10.74 |
| Ja 1949 | 8500 | 4440 | 29400 | 73940 | 14620 | 6375 | 18100 | 4250 | 4680 | 47995 | 21947 | 143182 | 85.0 | 10.80 |
| Ap 1949 | 8500 | 4440 | 29400 | 73940 | 14620 | 6375 | 18100 | 4250 | 4680 | 47995 | 21947 | 143182 | 85.0 | 10.80 |
| Ja 1949 | 8500 | 4440 | 29400 | 73940 | 14620 | 6375 | 18100 | 4250 | 4680 | 47995 | 21947 | 143182 | 85.0 | 10.80 |
| O 1949 | 8500 | 4440 | 29400 | 73940 | 14620 | 6375 | 18100 | 4250 | 4680 | 47995 | 21947 | 143182 | 85.0 | 10.80 |
| Ja 1950 | 9500 | 4440 | 27230 | 69340 | 14650 | 6330 | 18200 | 4325 | 4650 | 48350 | 20989 | 136693 | 82.4 | 10.46 |
| Ap 1950 | 9500 | 4460 | 28290 | 70310 | 14650 | 6330 | 18200 | 4325 | 4650 | 48350 | 21164 | 139228 | 83.0 | 10.56 |
| Ja 1950 | 10104 | 4568 | 30044 | 74134 | 14650 | 6330 | 18200 | 4325 | 4650 | 48350 | 21164 | 139228 | 83.0 | 10.56 |
| O 1950 | 10479 | 4680 | 30998 | 79378 | 14650 | 6330 | 18200 | 4325 | 4650 | 48350 | 21164 | 139228 | 83.0 | 10.56 |
| | | | | | | | | | | | | | | |



**30-UNIT REINFORCED
CONCRETE APARTMENT**
Content: 303, 534 cubic feet
21, 372 square feet

DESCRIPTIVE SPECIFICATIONS 30-FAMILY FIREPROOF APARTMENT BUILDING

GENERAL CONDITIONS - Same as 18-family brick apartment house.

PREPARATION OF SITE AND EXCAVATION - Same as 18-family brick apartment house.

CONCRETE FOOTINGS, FOUNDATIONS, COLUMNS, BEAMS AND FLOORS

Footings and foundation walls shall be installed to dimensions indicated on the plans. The mixture shall be one (1) part Portland Cement, three (3) parts clean sharp sand, five (5) parts broken stone, trap-rock, gravel or other suitable clean coarse aggregate, graded in size to pass through a 2" screen, adequately mixed with a sufficient amount of clean water in a mechanical batch mixer, placed in the forms within one-half hour thereafter. Substantial and tight forms shall be built on both inner and outer surface foundations of the walls. No part of the excavation wall shall be used as a form.

The columns, beams and floors shall be of reinforced concrete, 1:2:4 mix; columns and beams are to be provided and reinforced as indicated by the structural detail plans.

FINISHED CEMENT WORK - Same as 18-family brick apartment house.

BRICKWORK AND MASONRY ITEMS

The exterior (curtain) walls are to be of 13" matt brick, laid in Flemish bond, and backed with dobies. The rear walls of the building are to be faced with common brick. The contractor shall provide all brickwork as specified on the plans, comprising a chimney as indicated. Flues are to be lined with terra cotta of the proper dimension. Average-grade stone sills are to be provided for windows on the front and sides of the building. Ornamental work and roof coping to be of terra cotta.

Interior partitions are to be of 4" gypsum block.

LATHING AND PLASTERING Contractor shall provide for 3-coat plastering over the 4" gypsum block. The finished coat shall be one (1) part dry gauged plaster to two (2) parts dry hydrated lime. First grade workmanship is required in the application of each plaster coat. No cornice or other ornamental plaster work is contemplated under this contract.

TILING - Same as 18-family brick apartment house.

ROUGH CARPENTRY AND FRAMING MATERIAL Rough carpentry and framing material (comprising only the roof rafters in the roof towers) shall be the best grade provided by local practice. It may be yellow pine, white pine, fir or hemlock. These roof rafters are to be 2 x 6's spaced 16" c to c.

These rafters are to be covered by No. 2 sheathing not over 6" wide, and well secured at each intersection by two 6d nails.

ROOFING The flat portion of the roof is to be built-up asphalt over a 1" layer of Celotex laid over a 3" reinforced roof slab.

FLASHING - SHEET METAL WORK - Same as 18-family brick apartment house.

MILLWORK - WINDOW FRAMES AND SASH - Same as 18-family brick apartment house.

MILLWORK - INTERIOR - Same as 18-family brick apartment house

FINISHED FLOORS Finished floors shall be of clear plain red oak 2-1/4" x 13/16", laid on wood screeds set in concrete. Flooring shall be laid tight and even and nailed every 16". All oak flooring shall be scraped or sanded and completed ready for the painters.

BUILT-IN CABINETS Built-in kitchen cabinets shall be provided as indicated on the detailed plans.

ENTRANCE HALLS AND STAIRS - Same as 18-family brick apartment house.

REAR PORCHES AND STAIRS Rear porches and stairs are to be made of structural steel with concrete floors, sizes as indicated on the plans. There are to be 5 entrances to the basement of the building and these entrances are to be furnished with concrete steps.

PAINTING - Same as 18-family brick apartment house.

PLUMBING This specification contemplates a complete plumbing, drainage and water-supply system for 30 bathrooms, 30 kitchens, and for 15 laundry trays in (cont. on page 538)

BUILDING COSTS OF A THIRTY-FAMILY REINFORCED CONCRETE APARTMENT HOUSE BUILT IN SAINT LOUIS

536

MATERIAL

1. Cost of face brick, shingles, floor lining, terra cotta, cut stone, marble and tile.
2. Cost of concrete, claytile and reinforcing.
3. Cost of all plastering materials.
4. Cost of all lumber, flooring, millwork, roofing, paint, etc.
5. Cost of all materials for plumbing, heating, electrical work, sheet metal work, iron work, hardware and special equipment.
6. TOTAL MATERIAL COST.

LABOR

7. Cost of setting all stone, tile and marble and laying all brick.
8. Cost of carpentry, roofing, flooring, painting, decorating, and builder's general supervision.
9. Cost of labor on plastering.
10. Cost of installing plumbing material and fixtures, wiring, heating plant and sheet metal work.
11. Cost of excavation and miscellaneous.
12. TOTAL LABOR COST.

OVERHEAD

13. TOTAL OVERHEAD COST. This item includes cost of all city permits, utility connection costs, plans and engineering fees; cost of interest during construction and taxes and insurance; and estimated profit made by the builder - 7%.
14. TOTAL COST OF CONSTRUCTION.

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Ch. B. cost | Sp. B. cost |
|------|----------|---------|---------|----------|----------|----------|---------|---------|---------|---------|---------|----------|---------|----------|-------------|-------------|
| 1913 | \$10,584 | \$5,977 | \$3,643 | \$13,557 | \$14,813 | \$47,955 | \$7,067 | \$7,317 | \$4,530 | \$3,367 | \$1,900 | \$27,101 | \$9,080 | \$94,564 | \$7.95 | \$3.94 |
| 1914 | 10,694 | 6,437 | 3,642 | 13,659 | 15,965 | 44,847 | 7,067 | 7,377 | 4,630 | 3,367 | 1,980 | 27,161 | 9,790 | 93,206 | 27.4 | 3.99 |
| 1915 | 10,994 | 6,497 | 3,642 | 13,640 | 16,360 | 47,023 | 7,067 | 7,377 | 4,585 | 3,597 | 1,960 | 27,336 | 9,863 | 94,332 | 27.8 | 3.95 |
| 1916 | 12,184 | 7,380 | 3,647 | 13,336 | 18,394 | 54,793 | 8,307 | 7,328 | 4,860 | 3,777 | 1,900 | 28,000 | 10,810 | 93,710 | 30.9 | 4.38 |
| 1917 | 12,534 | 10,663 | 4,025 | 14,100 | 22,067 | 66,219 | 8,417 | 7,853 | 4,800 | 3,964 | 1,900 | 30,104 | 12,543 | 108,868 | 38.9 | 5.00 |
| 1918 | 15,734 | 10,157 | 5,395 | 15,330 | 25,974 | 76,581 | 9,574 | 8,600 | 5,030 | 5,064 | 1,900 | 31,178 | 13,763 | 121,523 | 40.0 | 5.60 |
| 1919 | 19,574 | 11,365 | 6,014 | 22,048 | 30,679 | 84,698 | 10,668 | 9,230 | 5,330 | 6,336 | 2,130 | 33,704 | 15,033 | 133,435 | 44.0 | 6.24 |
| 1920 | 24,210 | 15,110 | 7,938 | 27,558 | 30,608 | 105,424 | 10,361 | 13,361 | 5,060 | 7,414 | 2,710 | 35,820 | 17,953 | 162,203 | 52.4 | 7.90 |
| 1921 | 20,193 | 11,220 | 6,860 | 19,912 | 24,134 | 82,340 | 11,101 | 13,463 | 5,450 | 7,537 | 2,710 | 46,271 | 15,950 | 136,978 | 48.7 | 6.46 |
| 1922 | 20,281 | 10,010 | 6,359 | 20,818 | 23,615 | 81,720 | 11,034 | 12,528 | 5,560 | 7,544 | 2,710 | 39,968 | 15,830 | 136,827 | 48.1 | 6.40 |
| 1923 | 22,330 | 11,005 | 6,385 | 21,905 | 23,910 | 85,430 | 11,933 | 13,664 | 5,560 | 6,560 | 3,100 | 42,969 | 16,663 | 144,967 | 47.6 | 6.78 |
| 1924 | 23,210 | 10,785 | 6,730 | 19,885 | 24,383 | 86,283 | 14,538 | 16,213 | 6,840 | 10,697 | 3,380 | 51,008 | 17,918 | 154,259 | 50.8 | 7.23 |
| 1925 | 23,210 | 10,785 | 6,730 | 19,885 | 24,383 | 86,283 | 15,833 | 16,360 | 6,910 | 10,697 | 3,380 | 51,978 | 18,438 | 160,063 | 52.9 | 7.52 |
| 1926 | 21,046 | 10,340 | 6,020 | 18,102 | 20,475 | 85,882 | 15,163 | 16,448 | 6,100 | 9,205 | 3,380 | 50,297 | 16,323 | 154,592 | 50.9 | 7.23 |
| 1927 | 20,251 | 10,080 | 6,078 | 16,494 | 22,996 | 81,819 | 14,995 | 16,380 | 6,000 | 9,063 | 3,380 | 49,267 | 17,607 | 148,243 | 48.2 | 7.08 |
| 1928 | 19,794 | 10,080 | 6,063 | 16,237 | 22,035 | 79,329 | 14,474 | 16,280 | 5,915 | 9,063 | 3,380 | 49,267 | 17,347 | 146,359 | 47.9 | 6.98 |
| 1929 | 19,630 | 10,160 | 5,831 | 17,097 | 23,385 | 80,383 | 15,468 | 16,213 | 5,744 | 9,308 | 3,477 | 47,517 | 16,979 | 144,163 | 47.9 | 6.80 |
| 1930 | 18,630 | 9,973 | 5,062 | 14,737 | 26,490 | 74,791 | 12,469 | 13,584 | 4,537 | 9,206 | 3,100 | 43,966 | 16,100 | 134,095 | 44.4 | 6.21 |
| 1931 | 19,480 | 9,839 | 5,719 | 12,947 | 24,046 | 66,987 | 11,600 | 11,641 | 3,960 | 9,385 | 2,370 | 39,058 | 14,978 | 130,531 | 39.7 | 5.64 |
| 1932 | 14,416 | 8,019 | 5,796 | 11,813 | 21,354 | 61,384 | 9,819 | 10,090 | 3,270 | 7,826 | 2,080 | 33,005 | 12,075 | 107,554 | 35.4 | 5.03 |
| 1933 | 18,180 | 8,652 | 5,370 | 15,500 | 18,050 | 63,900 | 9,180 | 8,010 | 3,000 | 7,460 | 1,970 | 29,830 | 14,932 | 116,422 | 26.4 | 5.17 |
| 1934 | 19,950 | 9,050 | 6,000 | 19,800 | 21,100 | 78,580 | 9,180 | 8,010 | 3,000 | 7,460 | 1,970 | 29,830 | 15,922 | 122,132 | 40.3 | 5.71 |
| 1935 | 19,950 | 8,950 | 6,466 | 16,800 | 23,150 | 76,316 | 11,680 | 9,960 | 3,805 | 7,460 | 2,250 | 35,375 | 17,534 | 139,215 | 43.6 | 6.05 |
| 1936 | 19,480 | 9,180 | 5,700 | 17,000 | 23,250 | 75,210 | 12,700 | 11,650 | 4,360 | 7,460 | 2,815 | 38,925 | 18,531 | 132,666 | 43.7 | 6.21 |
| 1937 | 20,400 | 9,500 | 5,645 | 20,300 | 23,600 | 79,035 | 13,300 | 12,680 | 4,145 | 6,685 | 2,815 | 39,825 | 20,800 | 140,360 | 46.2 | 6.97 |
| 1938 | 18,630 | 9,100 | 5,760 | 17,460 | 23,730 | 74,950 | 13,630 | 11,825 | 5,190 | 6,100 | 2,730 | 36,455 | 19,776 | 138,665 | 43.4 | 6.02 |
| 1939 | 18,600 | 9,100 | 5,760 | 17,460 | 23,730 | 74,950 | 13,630 | 11,825 | 5,190 | 6,100 | 2,730 | 36,455 | 20,660 | 135,065 | 44.9 | 6.22 |
| 1940 | 18,370 | 9,230 | 5,810 | 18,850 | 21,750 | 74,300 | 13,440 | 11,300 | 5,340 | 6,100 | 2,815 | 38,995 | 20,620 | 134,034 | 44.2 | 6.27 |
| 1941 | 18,110 | 9,180 | 5,810 | 18,850 | 21,980 | 73,920 | 14,590 | 11,200 | 5,990 | 6,000 | 2,815 | 38,995 | 20,767 | 132,512 | 44.0 | 6.25 |
| 1942 | 18,110 | 9,150 | 6,030 | 22,410 | 21,980 | 77,460 | 13,700 | 11,320 | 5,550 | 6,910 | 2,815 | 40,595 | 21,231 | 136,236 | 44.9 | 6.27 |
| 1943 | 18,110 | 9,150 | 6,030 | 22,410 | 21,980 | 77,460 | 13,700 | 11,320 | 5,550 | 6,910 | 2,815 | 40,595 | 21,641 | 139,816 | 46.1 | 6.50 |

| | | | | | | | | | | | | | | | | | |
|----|------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|-------|--------|--------|---------|------|-------|
| Ja | 1941 | 19,050 | 9,370 | 6,030 | 22,800 | 22,500 | 75,650 | 14,850 | 13,130 | 6,120 | 6,210 | 3,600 | 44,700 | 32,744 | 147,094 | 40.5 | 6.80 |
| Ap | 1941 | 18,050 | 9,300 | 5,940 | 21,800 | 22,450 | 78,440 | 15,330 | 13,410 | 5,970 | 6,210 | 3,600 | 45,410 | 32,737 | 146,587 | 40.5 | 6.80 |
| Jl | 1941 | 19,400 | 9,320 | 5,940 | 24,250 | 22,450 | 81,950 | 15,950 | 14,930 | 6,080 | 6,310 | 3,800 | 47,070 | 32,787 | 152,237 | 50.5 | 7.17 |
| O | 1941 | 19,400 | 9,330 | 6,050 | 24,100 | 24,000 | 82,370 | 17,690 | 15,300 | 6,180 | 6,500 | 3,800 | 53,070 | 34,768 | 150,426 | 52.9 | 7.31 |
| Ja | 1942 | 19,480 | 9,320 | 6,704 | 24,850 | 25,800 | 86,174 | 18,110 | 15,500 | 6,310 | 6,500 | 3,940 | 53,000 | 35,312 | 164,346 | 54.1 | 7.69 |
| Ap | 1942 | 21,048 | 9,560 | 6,704 | 25,500 | 26,500 | 91,310 | 18,110 | 15,500 | 6,310 | 6,500 | 3,940 | 53,000 | 36,002 | 170,172 | 56.1 | 7.89 |
| Jl | 1942 | 21,048 | 9,560 | 6,704 | 25,500 | 26,500 | 91,310 | 18,110 | 15,500 | 6,310 | 6,500 | 3,940 | 53,000 | 36,002 | 170,172 | 56.1 | 7.89 |
| O | 1942 | 21,048 | 9,560 | 6,704 | 25,500 | 26,500 | 91,310 | 18,110 | 15,500 | 6,310 | 6,500 | 3,940 | 53,000 | 36,002 | 170,172 | 56.1 | 7.89 |
| Ja | 1943 | 21,048 | 9,560 | 6,704 | 25,500 | 26,500 | 91,310 | 18,110 | 15,500 | 6,310 | 6,500 | 3,940 | 53,000 | 36,002 | 170,172 | 56.1 | 7.89 |
| Ap | 1943 | 21,048 | 9,560 | 6,704 | 25,500 | 26,500 | 91,310 | 18,110 | 15,500 | 6,310 | 6,500 | 3,940 | 53,000 | 36,002 | 170,172 | 56.1 | 7.89 |
| Jl | 1943 | 21,048 | 9,560 | 6,704 | 25,500 | 26,500 | 91,310 | 18,110 | 15,500 | 6,310 | 6,500 | 3,940 | 53,000 | 36,002 | 170,172 | 56.1 | 7.89 |
| O | 1943 | 21,048 | 9,560 | 6,704 | 25,500 | 26,500 | 91,310 | 18,110 | 15,500 | 6,310 | 6,500 | 3,940 | 53,000 | 36,002 | 170,172 | 56.1 | 7.89 |
| Ja | 1944 | 21,048 | 9,560 | 6,704 | 25,500 | 26,500 | 91,310 | 18,110 | 15,500 | 6,310 | 6,500 | 3,940 | 53,000 | 36,002 | 170,172 | 56.1 | 7.89 |
| Ap | 1944 | 21,048 | 9,560 | 6,704 | 25,500 | 26,500 | 91,310 | 18,110 | 15,500 | 6,310 | 6,500 | 3,940 | 53,000 | 36,002 | 170,172 | 56.1 | 7.89 |
| Jl | 1944 | 21,048 | 9,560 | 6,704 | 25,500 | 26,500 | 91,310 | 18,110 | 15,500 | 6,310 | 6,500 | 3,940 | 53,000 | 36,002 | 170,172 | 56.1 | 7.89 |
| O | 1944 | 21,048 | 9,560 | 6,704 | 25,500 | 26,500 | 91,310 | 18,110 | 15,500 | 6,310 | 6,500 | 3,940 | 53,000 | 36,002 | 170,172 | 56.1 | 7.89 |
| Ja | 1945 | 22,400 | 9,930 | 7,090 | 23,100 | 28,500 | 100,330 | 17,230 | 15,300 | 6,000 | 6,310 | 3,800 | 44,110 | 35,419 | 168,799 | 50.6 | 7.89 |
| Ap | 1945 | 22,400 | 9,930 | 7,090 | 23,100 | 28,500 | 100,330 | 17,230 | 15,300 | 6,000 | 6,310 | 3,800 | 44,110 | 35,419 | 168,799 | 50.6 | 7.89 |
| Jl | 1945 | 22,400 | 9,930 | 7,090 | 23,100 | 28,500 | 100,330 | 17,230 | 15,300 | 6,000 | 6,310 | 3,800 | 44,110 | 35,419 | 168,799 | 50.6 | 7.89 |
| O | 1945 | 22,400 | 9,930 | 7,090 | 23,100 | 28,500 | 100,330 | 17,230 | 15,300 | 6,000 | 6,310 | 3,800 | 44,110 | 35,419 | 168,799 | 50.6 | 7.89 |
| Ja | 1946 | 23,417 | 10,435 | 7,047 | 23,437 | 29,073 | 103,509 | 22,343 | 22,232 | 8,094 | 10,336 | 5,340 | 50,470 | 38,880 | 178,440 | 56.8 | 8.35 |
| Ap | 1946 | 23,417 | 10,435 | 7,047 | 23,437 | 29,073 | 103,509 | 22,343 | 22,232 | 8,094 | 10,336 | 5,340 | 50,470 | 38,880 | 178,440 | 56.8 | 8.35 |
| Jl | 1946 | 23,417 | 10,435 | 7,047 | 23,437 | 29,073 | 103,509 | 22,343 | 22,232 | 8,094 | 10,336 | 5,340 | 50,470 | 38,880 | 178,440 | 56.8 | 8.35 |
| O | 1946 | 23,417 | 10,435 | 7,047 | 23,437 | 29,073 | 103,509 | 22,343 | 22,232 | 8,094 | 10,336 | 5,340 | 50,470 | 38,880 | 178,440 | 56.8 | 8.35 |
| Ja | 1947 | 25,400 | 12,278 | 7,399 | 23,437 | 30,475 | 106,980 | 25,321 | 22,232 | 8,190 | 10,336 | 5,340 | 50,470 | 38,880 | 178,440 | 56.8 | 8.35 |
| Ap | 1947 | 25,400 | 12,278 | 7,399 | 23,437 | 30,475 | 106,980 | 25,321 | 22,232 | 8,190 | 10,336 | 5,340 | 50,470 | 38,880 | 178,440 | 56.8 | 8.35 |
| Jl | 1947 | 25,400 | 12,278 | 7,399 | 23,437 | 30,475 | 106,980 | 25,321 | 22,232 | 8,190 | 10,336 | 5,340 | 50,470 | 38,880 | 178,440 | 56.8 | 8.35 |
| O | 1947 | 25,400 | 12,278 | 7,399 | 23,437 | 30,475 | 106,980 | 25,321 | 22,232 | 8,190 | 10,336 | 5,340 | 50,470 | 38,880 | 178,440 | 56.8 | 8.35 |
| Ja | 1948 | 27,450 | 13,400 | 10,400 | 24,450 | 39,600 | 141,300 | 31,600 | 26,600 | 11,470 | 14,190 | 5,380 | 62,340 | 41,186 | 274,726 | 56.4 | 13.09 |
| Ap | 1948 | 27,450 | 13,400 | 10,400 | 24,450 | 39,600 | 141,300 | 31,600 | 26,600 | 11,470 | 14,190 | 5,380 | 62,340 | 41,186 | 274,726 | 56.4 | 13.09 |
| Jl | 1948 | 27,450 | 13,400 | 10,400 | 24,450 | 39,600 | 141,300 | 31,600 | 26,600 | 11,470 | 14,190 | 5,380 | 62,340 | 41,186 | 274,726 | 56.4 | 13.09 |
| O | 1948 | 27,450 | 13,400 | 10,400 | 24,450 | 39,600 | 141,300 | 31,600 | 26,600 | 11,470 | 14,190 | 5,380 | 62,340 | 41,186 | 274,726 | 56.4 | 13.09 |
| Ja | 1949 | 31,200 | 14,700 | 11,260 | 26,100 | 51,800 | 156,350 | 33,400 | 28,350 | 12,200 | 15,500 | 5,380 | 62,340 | 41,186 | 274,726 | 56.4 | 13.09 |
| Ap | 1949 | 31,200 | 14,700 | 11,260 | 26,100 | 51,800 | 156,350 | 33,400 | 28,350 | 12,200 | 15,500 | 5,380 | 62,340 | 41,186 | 274,726 | 56.4 | 13.09 |
| Jl | 1949 | 31,200 | 14,700 | 11,260 | 26,100 | 51,800 | 156,350 | 33,400 | 28,350 | 12,200 | 15,500 | 5,380 | 62,340 | 41,186 | 274,726 | 56.4 | 13.09 |
| O | 1949 | 31,200 | 14,700 | 11,260 | 26,100 | 51,800 | 156,350 | 33,400 | 28,350 | 12,200 | 15,500 | 5,380 | 62,340 | 41,186 | 274,726 | 56.4 | 13.09 |
| Ja | 1950 | 31,200 | 14,700 | 11,260 | 26,100 | 51,800 | 156,350 | 33,400 | 28,350 | 12,200 | 15,500 | 5,380 | 62,340 | 41,186 | 274,726 | 56.4 | 13.09 |
| Ap | 1950 | 31,200 | 14,700 | 11,260 | 26,100 | 51,800 | 156,350 | 33,400 | 28,350 | 12,200 | 15,500 | 5,380 | 62,340 | 41,186 | 274,726 | 56.4 | 13.09 |
| Jl | 1950 | 31,200 | 14,700 | 11,260 | 26,100 | 51,800 | 156,350 | 33,400 | 28,350 | 12,200 | 15,500 | 5,380 | 62,340 | 41,186 | 274,726 | 56.4 | 13.09 |
| O | 1950 | 31,200 | 14,700 | 11,260 | 26,100 | 51,800 | 156,350 | 33,400 | 28,350 | 12,200 | 15,500 | 5,380 | 62,340 | 41,186 | 274,726 | 56.4 | 13.09 |

(cont. from page 535)

the basement.

Sewer Line, Vents and Drainage. Same as 18-family brick apartment house.

Water Supply. Same as 18-family brick apartment house.

Fixtures. There shall be furnished and installed to the rough connections here provided fixtures of equal quality to those specified in the following list: (The following list covers items manufactured by the Independent Plumbing and Heating Company. Contractor is permitted to substitute any equal combination.)

30 - 60" Queen Sinks #457

30 - Knight Pedestal Lavatories 20" x 24" over all #224

30 - Colonial Vitreous China Toilets with white Ivoryette seat #344

30 - 60" Bath Tubs #123

Hot Water Supply. Same as 18-family brick apartment house.

Alternates. Same as 18-family brick apartment house.

HEATING PLANT

The purpose of this specification is to describe complete installation of the 2-pipe steam heating plant. All pipes shall be of genuine wrought iron installed in sizes, pitch and direction as indicated on the heating plans and instructions provided by the manufacturer furnishing the vacuum system accessories.

Radiation furnished by this contract is to consist of a total of 4000 square feet concealed steam radiation. The boiler shall be of capacity and design equal to Kewanee boiler #10K, and is to be complete including insulating jackets, standard fittings and tools.

The contractor shall guarantee the heating plant to heat the entire first, second and third floors of the building to 70 degrees Fahrenheit when the outside temperature is at Zero Fahrenheit and wind velocity is not in excess of 30 miles per hour. This should be accomplished by not more than 2-lb. gauge pressure at the boiler. The plant shall be tested as required and left complete.

Covering - Pipe and Boiler Jacket. Same as 18-family brick apartment house.

Painting. Same as 18-family brick apartment house.

ELECTRIC WIRING - Same as 18-family brick apartment house.

MECHANICAL EQUIPMENT

Each apartment is to be equipped with one 4-burner side oven gas stove with automatic oven regulator; one 6-cubic-foot electric refrigerator; and one In-a-Door or Roll-Away bed. The building is to be provided with 5 Kerner incinerators, each incinerator to have a refuse door installed in the wall of the building at the proper height above the first, second and third floor service stair landings.



TYPICAL FLOOR PLAN



COMMERCIAL BUILDING - NO BASEMENT

Content: 115,850 cubic feet
8,075 square feet

DESCRIPTIVE SPECIFICATIONS BRICK COMMERCIAL BUILDING

GENERAL CONDITIONS

Materials, Labor, Appliances. Unless otherwise specified herein, the contractor shall provide and pay for all materials, labor, water, tools, equipment, permits, light and power necessary for the completion of the Wenzlick commercial building. Unless otherwise specified, all materials shall be sound, new and of good quality and all work shall be done in a skillful and workmanlike manner.

PREPARATION OF SITE AND EXCAVATION

The contractor shall clear the site of all trees, brush, etc. The excavation shall be of sufficient area and depth to accommodate the footings of the building. The ground to be enclosed by the foundation walls shall be leveled to receive a 3" cinder bed. Any surplus material not required to grade the plot as indicated by plans shall be removed from the premises and the shortage of materials shall be furnished by the contractor.

Rock excavation is not included in this contract. The contractor will be paid an additional price per cubic foot for rock removal as specified in his bid.

CONCRETE FOOTINGS, FOUNDATIONS AND FLOOR

Footings and foundation walls shall be installed to dimensions indicated on the plans. The mixture shall be one (1) part Portland Cement, three (3) parts clean sharp sand, five (5) parts broken stone, trap-rock, gravel or other suitable clean coarse aggregate, graded in size to pass through a 2" screen, adequately mixed with a sufficient amount of clean water in a mechanical batch mixer, placed in the forms within one-half hour thereafter. Substantial and tight forms shall be built on both inner and outer surface foundations of the walls. No part of the excavation wall shall be used as a form.

Reinforcing rods are to be placed in the foundation and footings as indicated on the detailed plans.

The floor of the building is to be 1:3:5 concrete poured over a 3" cinder bed. The concrete floor is to be 5" thick and is to be reinforced by 6 x 6 steel mesh.

BRICKWORK AND MASONRY ITEMS

Exterior walls are to be 13" variegated matt brick laid in Flemish bond and backed with common brick. The rear wall of the building is to be faced with common brick.

Interior partitions are to be curtain walls of 4" gypsum block.

STRUCTURAL STEEL

Structural steel work shall be 6 x 6 "H" columns supporting 10" "I" beams as indicated on the structural steel plans. Ceiling joists are to be 16" steel bar joists set on 54" centers. 2½" x 3½" x 1/4" angle iron 4 feet long shall form the lintel over each door and window in the rear wall.

PLASTERING

Contractor shall provide for 3-coat plastering of gypsum block partitions. The scratch coat shall be one (1) part lime putty and two (2) parts sand with proper proportions of fiber and sand added. The brown coat shall be one (1) part lime putty to three (3) parts sand, and the finish coat shall be one (1) part hard wall plaster to two (2) parts of hydrated lime. The ceilings shall be plastered three (3) coats over expanded metal lath, the first two coats to be the same as those placed on the walls. The finished coat of the ceilings shall be acoustical plaster.

ROUGH CARPENTRY AND FRAMING MATERIAL

Rough carpentry and framing material shall be the best grade provided in local practice. It may be yellow pine, white pine, fir or hemlock. All material shall be of sizes indicated.

Roof rafters, 2" x 6" - spaced 16" c to c
Studding for gable ends 2 x 4's - spaced 16" c to c

ROOF SHEATHING *

The sheathing over the gable portion of the roof shall be #2 yellow pine dressed and not over 6" wide, securely fastened at each intersection by 2 6d nails. The sheathing over the flat portion of the roof is to be 2" metal edge gypsum plank.

ROOFING

The gable portion of the roof shall be covered with a good grade of variegated slate laid over 15-lb. roofing felt. The gable ends are to be covered with 10" beveled redwood siding. The flat portion of the roof is to be built-up asphalt and felt laid over the 2" metal edge gypsum plank and covered with roofing gravel.

FLASHING - SHEET METAL WORK - Same as 18-family brick apartment house.

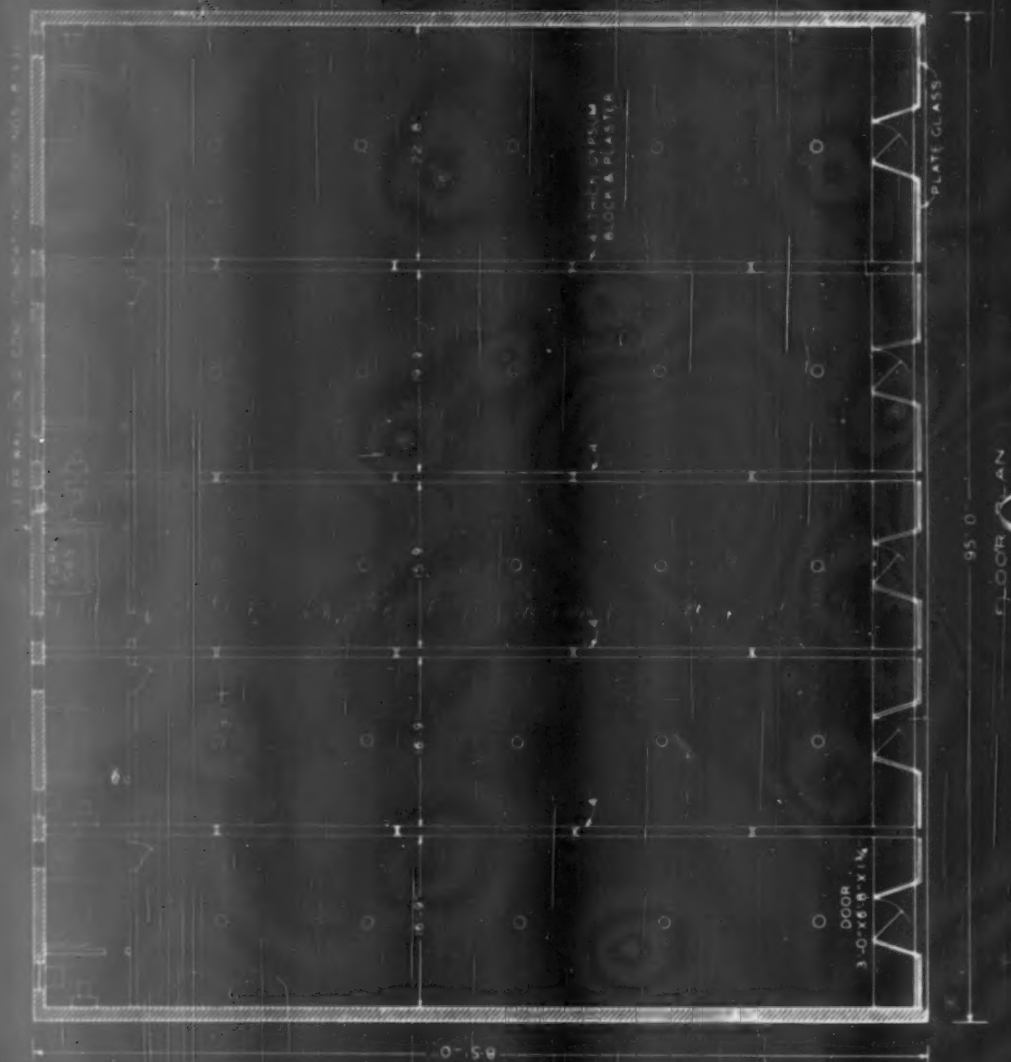
MILLWORK - WINDOW FRAMES AND SASH - Same as 18-family brick apartment house.

MILLWORK - INTERIOR - Same as 18-family brick apartment house.

FINISHED FLOORS

Finished floors shall be of asphalt tile (Johns Manville group B or equivalent) 1/8" thick laid in mastic over the concrete floor.

PAINTING - Same as 18-family brick apartment house.



PLUMBING

This specification contemplates a complete plumbing, drainage and water-supply system for 5 lavatories and 5 toilets.

Sewer Line, Vents and Drainage. House sewer line of 6" shall be carried to a point 50 feet beyond foundation walls. Vent and drainage system shall be installed and tested in accordance with best local practice, municipal code, or requirements of American Society of Sanitary Engineers. All joints shall be filled with oakum and poured lead and well calked. 2" vent and waste lines shall be of genuine galvanized wrought iron. 6" vitrified tile pipe shall be continued beyond the foundation walls for 50 feet and the joints securely set with cement mortar. Plumber shall excavate and backfill all pipe trenches.

Water Supply. A pipe shall be continued 50 feet beyond the foundation walls in separate trench. This shall be laid using 1" copper water tubing with sweat-joint fittings. One-half inch copper tubing with sweat-joint pipe and fitting shall be installed for hot and cold water supply and connected with all plumbing fixtures and boiler. (Water closets and boiler shall be provided with cold-water supply only.) All pipe and fitting shall be installed in accordance with manufacturer's instructions.

Fixtures. There shall be furnished and installed to the rough connections here provided fixtures of quality equal to those specified in the following list: (The following list covers items manufactured by the Independent Plumbing and Heating Company. Contractor is permitted to substitute any equal combination.)

5 - Knight Pedestal Lavatories 20" x 24" over all #224

5 - Colonial Vitreous China Toilets with white ivoryette seat #344

Hot Water Supply. A water heater is not provided under these specifications. It is to be provided under separate order on selection by the owner.

Alternates. Same as 18-family brick apartment house.

HEATING PLANT

The purpose of this specification is to describe complete installation of 5 gas-fired forced warm air furnaces. Furnaces are to be three 80GH, one DL2100 and one DL3125 Front Rank furnaces or equivalent. Duct work and registers are to be provided in the manner indicated on the heating plans. Each furnace shall be tested as required and left complete.

ELECTRIC WIRING - Same as 18-family brick apartment house.

BUILDING COSTS OF A BRICK COMMERCIAL BUILDING BUILT IN SAINT LOUIS

Costs are grouped into four classifications of material, hour of labor and one of overhead. A further breakdown of these groups is given in detail below. Columns of the table are numbered, and a brief description of the items included in each is given in the paragraphs below. Paragraphs are numbered to correspond with the columns described. Building material items are indicated by the letter M, corresponding building items by the letter L. No labor items are shown in Column 10, Building Hardware, as they have already been included in Column 5, Millwork.

GROUP A

(1) Masonry: Cement, sand, gravel, acoustical plaster, hydrated lime, welded steel fabric, face brick and common brick, and salt glazed coping.

GROUP B

(2) Tile Work: None included in building.

GROUP C

(3) Unfinished Lumber: "H" columns, bar joists, roof rafters and studs, and redwood siding.

(4) Finished Lumber: Firm lumber, asphalt tile flooring, slate roofing, roofing felt, asphalt, roofing gravel, gypsum blocks and gypsum plank.

GROUP D

(5) Millwork: Windows, doors, plate glass.

GROUP E

(6) Heating: 5 gas-fired furnaces and metal for duct work.

(7) Plumbing: Soil pipes and fittings, waste pipe and fittings, traps and covers, curb box, solder strip, lead, tarred oakum, lavatories and toilets.

GROUP F

(8) Sheet Metal: Gutters, downspouts, flashing.

(9) Electrical Work: Main switch box, BX cables, switches, switch boxes, outlet boxes, 8-circuit fuse box, junction boxes, wiring, etc.

(10) Building Hardware: Metal bolts and hardware, etc.

(11) White lead, turpentine, linseed oil, varnish, abelene, stain, etc.

(12) Miscellaneous: Metal lath, mineral wool insulation.

(13) Total overhead, profit and other costs. This item includes overhead and profit of subcontractors in plastering, metal work, heating, plumbing and electrical work; general contractor's profit; and Missouri sales tax (now 2% on materials), old age and unemployment tax (Federal and State), liability and employees' compensation insurance, fire and flood insurance, and completion bond.

TOTAL CONSTRUCTION COST

| Year | GROUP A | | | | GROUP B | | | | GROUP C | | | | GROUP D | | | | TOTAL GROUP E | | | | Cu. ft. | Sq. ft. | | | | | | |
|----------|---------|--------|--------|-------|---------|-------|-------|-------|---------|-------|-------|-------|---------|------|------|------|---------------|------|------|-------|---------|---------|--------|--------|---------|-------|--------|------|
| | M | L | M | L | M | L | M | L | M | L | M | L | M | L | M | L | M | L | | | | | | | | | | |
| 1939 | \$3251 | \$2319 | \$2109 | \$658 | \$5046 | \$260 | \$607 | \$222 | \$747 | \$486 | \$471 | \$252 | \$56 | \$34 | \$45 | \$73 | \$63 | \$29 | \$50 | \$244 | \$172 | \$10000 | \$4538 | \$4138 | \$19474 | 16.86 | \$2.41 | |
| Ja 1940 | 3332 | 2774 | 2491 | 643 | 3048 | 282 | 625 | 206 | 776 | 518 | 428 | 255 | 69 | 32 | 54 | 73 | 63 | 31 | 43 | 245 | 187 | 11149 | 4595 | 4227 | 19971 | 17.2 | 2.47 | |
| Ap 1940 | 3332 | 2774 | 2695 | 643 | 2973 | 282 | 625 | 206 | 776 | 518 | 421 | 255 | 75 | 32 | 54 | 73 | 64 | 34 | 43 | 245 | 187 | 11303 | 4595 | 4227 | 20189 | 17.4 | 2.50 | |
| Jul 1940 | 3332 | 2774 | 2697 | 643 | 2971 | 286 | 625 | 206 | 778 | 518 | 431 | 255 | 75 | 32 | 53 | 73 | 64 | 35 | 43 | 258 | 214 | 11663 | 4698 | 4288 | 20210 | 17.4 | 2.50 | |
| O 1940 | 3332 | 2771 | 2714 | 666 | 3205 | 266 | 679 | 208 | 778 | 518 | 435 | 205 | 75 | 32 | 53 | 73 | 64 | 35 | 43 | 258 | 214 | 11663 | 4698 | 4288 | 20817 | 18.0 | 2.58 | |
| Ja 1941 | 3414 | 2744 | 2712 | 747 | 3231 | 299 | 668 | 230 | 769 | 581 | 412 | 317 | 74 | 35 | 47 | 73 | 64 | 36 | 46 | 258 | 228 | 11707 | 5372 | 4844 | 21863 | 18.9 | 2.71 | |
| Ap 1941 | 3380 | 2711 | 2657 | 747 | 3061 | 299 | 669 | 230 | 769 | 581 | 428 | 298 | 74 | 35 | 47 | 73 | 64 | 36 | 46 | 257 | 238 | 10742 | 5379 | 4850 | 22564 | 17.7 | 2.54 | |
| Jul 1941 | 3466 | 2817 | 3204 | 837 | 3140 | 344 | 669 | 266 | 791 | 581 | 428 | 298 | 106 | 35 | 46 | 81 | 65 | 38 | 60 | 280 | 238 | 12263 | 5378 | 4850 | 23544 | 19.5 | 2.80 | |
| O 1941 | 3556 | 3048 | 4278 | 929 | 3074 | 372 | 706 | 289 | 791 | 933 | 432 | 343 | 126 | 55 | 57 | 91 | 66 | 39 | 67 | 286 | 258 | 13292 | 5365 | 5282 | 25049 | 21.6 | 3.10 | |
| Ja 1942 | 3454 | 3098 | 3009 | 950 | 3241 | 376 | 706 | 289 | 791 | 933 | 474 | 346 | 73 | 55 | 60 | 91 | 68 | 39 | 67 | 291 | 241 | 13138 | 5448 | 5378 | 24960 | 21.6 | 3.09 | |
| Ap 1942 | 3502 | 3098 | 2779 | 950 | 3250 | 376 | 714 | 289 | 791 | 933 | 462 | 346 | 73 | 55 | 60 | 91 | 68 | 39 | 67 | 291 | 241 | 13116 | 5448 | 5378 | 25763 | 20.5 | 2.95 | |
| Jul 1942 | 3511 | 3098 | 3112 | 983 | 3250 | 380 | 714 | 289 | 791 | 933 | 462 | 382 | 67 | 55 | 60 | 91 | 71 | 60 | 67 | 291 | 229 | 13263 | 5507 | 5325 | 24465 | 21.1 | 3.02 | |
| O 1942 | 3581 | 2925 | 2455 | 853 | 3252 | 380 | 714 | 259 | 789 | 953 | 482 | 298 | 67 | 55 | 60 | 91 | 68 | 39 | 67 | 291 | 223 | 11798 | 6028 | 5017 | 22843 | 19.7 | 2.83 | |
| Ja 1943 | 3557 | 2925 | 2455 | 853 | 3252 | 380 | 714 | 259 | 829 | 933 | 462 | 298 | 67 | 55 | 60 | 85 | 82 | 78 | 40 | 60 | 283 | 223 | 11827 | 6028 | 5021 | 22876 | 19.8 | 2.83 |
| Ap 1943 | 3557 | 2925 | 2455 | 853 | 3252 | 380 | 714 | 259 | 819 | 933 | 462 | 298 | 67 | 55 | 60 | 85 | 82 | 78 | 40 | 60 | 283 | 223 | 11812 | 6028 | 5015 | 22855 | 19.7 | 2.83 |
| Jul 1943 | 3557 | 2730 | 2455 | 781 | 3252 | 307 | 714 | 232 | 819 | 581 | 463 | 298 | 67 | 37 | 85 | 81 | 78 | 40 | 60 | 283 | 223 | 11812 | 5819 | 4823 | 22354 | 19.3 | 2.77 | |
| O 1943 | 3557 | 2730 | 2477 | 781 | 3447 | 307 | 714 | 232 | 819 | 581 | 463 | 298 | 67 | 37 | 85 | 81 | 78 | 40 | 60 | 302 | 223 | 12048 | 5329 | 4775 | 22152 | 19.3 | 2.74 | |
| Ja 1944 | 3557 | 2730 | 2477 | 781 | 3273 | 307 | 778 | 232 | 817 | 581 | 463 | 298 | 67 | 37 | 85 | 81 | 78 | 40 | 60 | 302 | 223 | 11936 | 5329 | 4793 | 22058 | 19.0 | 2.73 | |
| Ap 1944 | 3557 | 2730 | 2478 | 781 | 3275 | 307 | 778 | 232 | 817 | 581 | 463 | 298 | 67 | 37 | 85 | 81 | 78 | 40 | 60 | 302 | 223 | 11940 | 5329 | 4793 | 22062 | 19.0 | 2.73 | |
| Jul 1944 | 3557 | 2730 | 2478 | 781 | 3278 | 307 | 778 | 232 | 817 | 581 | 463 | 298 | 67 | 37 | 85 | 81 | 78 | 40 | 60 | 302 | 223 | 11960 | 5329 | 4798 | 22085 | 19.1 | 2.73 | |
| O 1944 | 3557 | 2730 | 2484 | 781 | 3278 | 307 | 791 | 232 | 817 | 581 | 463 | 317 | 67 | 37 | 85 | 81 | 78 | 40 | 60 | 312 | 265 | 12038 | 5727 | 4911 | 22673 | 19.6 | 2.81 | |
| Ja 1945 | 3623 | 3067 | 2484 | 841 | 3278 | 307 | 791 | 232 | 817 | 581 | 463 | 317 | 67 | 37 | 85 | 81 | 78 | 40 | 60 | 312 | 265 | 12091 | 5928 | 4908 | 22985 | 19.8 | 2.85 | |
| Ap 1945 | 3623 | 3109 | 2484 | 841 | 3278 | 344 | 841 | 261 | 819 | 581 | 464 | 317 | 67 | 37 | 85 | 81 | 78 | 40 | 60 | 312 | 265 | 12150 | 5928 | 4908 | 23003 | 19.8 | 2.85 | |
| Jul 1945 | 3682 | 3109 | 2484 | 874 | 3278 | 344 | 841 | 261 | 819 | 581 | 469 | 317 | 67 | 37 | 85 | 81 | 78 | 40 | 60 | 312 | 265 | 12150 | 5928 | 4908 | 23003 | 19.8 | 2.85 | |
| O 1945 | 3755 | 3109 | 2464 | 963 | 3278 | 380 | 841 | 290 | 819 | 581 | 469 | 317 | 67 | 37 | 85 | 81 | 78 | 40 | 60 | 312 | 265 | 12150 | 5928 | 4908 | 23379 | 20.2 | 2.80 | |
| Ja 1946 | 3933 | 4259 | 2463 | 1345 | 3272 | 531 | 841 | 405 | 819 | 581 | 469 | 499 | 67 | 37 | 85 | 128 | 78 | 40 | 91 | 312 | 355 | 12499 | 8230 | 5856 | 26565 | 22.9 | 3.29 | |
| Ap 1946 | 3964 | 4478 | 2522 | 1413 | 3539 | 561 | 841 | 433 | 834 | 871 | 478 | 511 | 71 | 55 | 85 | 141 | 78 | 40 | 97 | 312 | 340 | 13782 | 8901 | 6186 | 27889 | 24.1 | 3.45 | |
| Jul 1946 | 4139 | 4716 | 2510 | 1413 | 3970 | 561 | 841 | 433 | 834 | 871 | 478 | 511 | 71 | 55 | 85 | 150 | 78 | 40 | 97 | 312 | 340 | 13118 | 9161 | 6186 | 28585 | 24.7 | 3.54 | |
| O 1946 | 4543 | 4716 | 2510 | 1427 | 4066 | 561 | 841 | 433 | 834 | 871 | 532 | 511 | 71 | 55 | 104 | 130 | 80 | 43 | 97 | 312 | 340 | 13426 | 9435 | 6474 | 29355 | 25.3 | 3.62 | |
| Ja 1947 | 4543 | 4716 | 2510 | 1427 | 4066 | 561 | 841 | 433 | 834 | 871 | 532 | 511 | 71 | 55 | 118 | 150 | 80 | 43 | 97 | 312 | 340 | 13868 | 9556 | 6474 | 29355 | 26.0 | 3.72 | |

